

Planning Context

III. PLANNING CONTEXT

In our effort to define future management and administration of the Refuge we examined a number of relevant areas. These included: Refuge authorities and legal mandates, national and regional directives, internal/external opportunities and issues, Refuge unique assets, Service ecosystem goals for the Upper Mississippi River/Tallgrass Prairie ecosystem, fish and wildlife priorities for the Great Lakes-Big Rivers Region of the Service, and relevant Federal, state, and local landscape level plans and planning efforts. Where considerable uncertainty occurred, the planning team made a number of management assumptions.

1. AUTHORITIES AND LEGAL MANDATES

Management and administration of the Refuge is accomplished in accordance with authority delegated by Congress and interpreted by regulations and guidelines established in accordance with such delegations. Some important legislative authorities and legal mandates (in the order that they appeared) guiding the management of the Refuge (and the Service) include:

- National Wildlife Refuge System Volunteer and Community Partnership Enhancement Act (1998): Amends the Fish and Wildlife Act of 1956 to promote volunteer programs and community partnerships for the benefit of national wildlife refuges, and for other purposes.
- National Wildlife Refuge System Improvement Act (1966) as amended by the National Wildlife Refuge System Improvement Act (1997)16 U.S.C. 668dd668ee. (Refuge Administration Act): Defines the National Wildlife Refuge System and authorizes the Secretary to permit any use of a refuge provided such use is compatible with the major purposes for which the refuge was established. The Refuge Improvement Act clearly defines a unifying mission for the Refuge System; establishes the legitimacy and appropriateness of the six priority public uses (hunting, fishing, wildlife observation and photography, or environmental education and interpretation); establishes a formal process for determining compatibility; established the responsibilities of the Secretary of Interior for managing and protecting the System; and requires a Comprehensive Conservation Plan for each refuge by the year 2012. This Act amended portions of the Refuge Recreation Act and National Wildlife Refuge System Administration Act of 1966.
- National Trails System Act (1996): Assigns responsibility to the Secretary of Interior and thus the Service to protect the historic and recreational values of congressionally designated National Historic Trail sites.
- Executive Order 12996 Management and General Public Use of the National Wildlife Refuge System (1996): Defines the mission, purpose, and priority public uses of the National Wildlife Refuge System. It also presents four principles to guide management of the System.
- Executive Order 13007 Indian Sacred Sites (1996): Directs Federal land management agencies to accommodate access to and ceremonial use of Indian sacred sites by Indian religious practitioners, avoid adversely affecting the physical integrity of such sacred sites, and where appropriate, maintain the confidentiality of sacred sites.
- Executive Order 12898 (1994): Establishes environmental justice as a Federal government priority and directs all Federal agencies to make environmental justice part of their mission. Environmental justice calls for fair distribution of environmental hazards.



Planning Context

- Americans With Disabilities Act (1992): Prohibits discrimination in public accommodations and services.
- Federal Noxious Weed Act (1990): Requires the use of integrated management systems to control or contain undesirable plant species, and an interdisciplinary approach with the cooperation of other Federal and State agencies.
- Native American Graves Protection and Repatriation Act (1990): Requires Federal agencies and museums to inventory, determine ownership of, and repatriate cultural items under their control or possession.
- Emergency Wetlands Resources Act (1986): The purpose of the Act is "To promote the conservation of migratory waterfowl and to offset or prevent the serious loss of wetlands by the acquisition of wetlands and other essential habitat, and for other purposes."
- Federal Farmland Protection Policy Act (1981) as amended: The purpose of the Act is to minimize the extent to which Federal programs contribute to the unnecessary and irreversible conversion of farmland to nonagricultural uses.
- Archaeological Resources Protection Act (1979) as amended: Protects materials of archaeological interest from unauthorized removal or destruction and requires Federal managers to develop plans and schedules to locate archaeological resources.
- American Indian Religious Freedom Act (1978): Directs agencies to consult with native traditional religious leaders to determine appropriate policy changes necessary to protect and preserve Native American religious cultural rights and practices.
- Fish and Wildlife Improvement Act (1978): This act was passed to improve the administration of fish and wildlife programs and amends several earlier laws including the Refuge Recreation Act, the National Wildlife Refuge System Administration Act, and the Fish and Wildlife Act of 1956. It authorizes the Secretary to accept gifts and bequests of real and personal property on behalf of the United States. It also authorizes the use of volunteers on Service projects and appropriations to fund volunteer programs.
- Clean Water Act (1977): Requires consultation with the Corps of Engineers (404 permits) for major wetland modifications.
- Surface Mining Control and Reclamation Act (1977) as amended (Public Law 95-87) (SMCRA): Regulates surface mining activities and reclamation of coal-mined lands. Further regulates the coal industry by designating certain areas as unsuitable for coal mining operations.
- Executive Order 11988 (1977): Each Federal agency shall provide leadership and take action to reduce the risk of flood loss and minimize the impact of floods on human safety, and preserve the natural and beneficial values served by the floodplains.
- Executive Order 11990: Directs Federal agencies to (1) minimize destruction, loss, or degradation of wetlands and (2) preserve and enhance the natural and beneficial values of wetlands when a practical alternative exists.
- Executive Order 12372 (Intergovernmental Review of Federal Programs): In compliance, the Service will send copies of the Environmental Assessment to Iowa State Planning Agencies for review.
- Archaeological and Historic Preservation Act (1974): Directs the preservation of historic and archaeological data in Federal construction projects.
- Endangered Species Act (1973): Requires all Federal agencies to carry out programs for the conservation of endangered and threatened species.
- Rehabilitation Act (1973): Requires programmatic accessibility in addition to physical



Planning Context

accessibility for all facilities and programs funded by the Federal government to ensure that anybody can participate in any program.

- Uniform Relocation and Assistance and Real Property Acquisition Policies Act (1970) as amended: This Act provides for uniform and equitable treatment of persons who sell their homes, businesses, or farms to the Service. The Act requires that any purchase offer be no less than the fair market value of the property.
- National Environmental Policy Act (1969): Requires the disclosure of the environmental impacts of any major Federal action significantly affecting the quality of the human environment.
- Architectural Barriers Act (1968): Requires federally owned, leased, or funded buildings and facilities to be accessible to persons with disabilities.
- National Historic Preservation Act (1966) as amended: Establishes as policy that the Federal Government is to provide leadership in the preservation of the nation's prehistoric and historic resources.
- Land and Water Conservation Fund Act (1965): Uses the receipts from the sale of surplus Federal land, outer continental shelf oil and gas sales, and other sources for land acquisition under several authorities.
- Wilderness Act (1964) as amended: Directed the Secretary of Interior, within 10 years, to review every roadless area of 5,000 or more acres and every roadless island (regardless of size) within National Wildlife Refuge and National Park Systems and to recommend to the President the suitability of each such area or island for inclusion in the National Wilderness Preservation System, with final decisions made by Congress. The Secretary of Agriculture was directed to study and recommend suitable areas in the National Forest System.
- Note Lands within the legislative boundaries of the Refuge were reviewed for wilderness suitability as part of the CCP process. No lands were found suitable for designation as Wilderness as defined in the Wilderness Act of 1964. The Refuge does not contain 5,000 contiguous roadless acres nor does the refuge have any units of sufficient size to make their preservation practicable as designated Wilderness.
- **Refuge Recreation Act (1962):** Allows the use of refuges for recreation when such uses are compatible with the refuge's primary purposes and when sufficient funds are available to manage the uses.
- Fish and Wildlife Act (1956): Established a comprehensive national fish and wildlife policy and broadened the authority for acquisition and development of refuges. Will serve as one of two land acquisition authorities for the Yellow River Focus Area.
- Transfer of Certain Real Property for Wildlife Conservation Purposes Act (1948): Provides that upon a determination by the Administrator of the General Services Administration, real property no longer needed by a Federal agency can be transferred without reimbursement to the Secretary of Interior if the land has particular value for migratory birds, or to a State agency for other wildlife conservation purposes.
- Historic Sites, Buildings and Antiquities Act (1935) as amended: Declares it a national policy to preserve historic sites and objects of national significance, including those located on refuges. Provides procedures for designation, acquisition, administration, and protection of such sites.
- Refuge Revenue Sharing Act (1935) as amended: This act requires revenue sharing provisions to all fee-title ownerships that are administered solely or primarily by the Secretary through the Service.
- Fish and Wildlife Coordination Act (1934) as amended: Requires that the Fish and



Planning Context

Wildlife Service and State fish and wildlife agencies be consulted whenever water is to be impounded, diverted or modified under a Federal permit or license. The Service and State agency recommend measures to prevent the loss of biological resources, or to mitigate or compensate for the damage. The project proponent must take biological resource values into account and adopt justifiable protection measures to obtain maximum overall project benefits. A 1958 amendment added provisions to recognize the vital contribution of wildlife resources to the Nation and to require equal consideration and coordination of wildlife conservation with other water resources development programs.

- Migratory Bird Hunting and Conservation Stamp Act (1934): Authorized the opening of parts of national wildlife refuges to waterfowl hunting.
- Migratory Bird Conservation Act (1929): Establishes procedures for land acquisition as approved by the Migratory Bird Conservation Commission.
- **Migratory Bird Treaty Act (1918):** Designates the protection of migratory birds as a Federal responsibility. This Act enables the setting of seasons, and other regulations including the closing of areas, Federal or non-Federal, to the hunting of migratory birds.
- Antiquities Act (1906): Authorizes the scientific investigation of antiquities on Federal land and provides penalties for unauthorized removal of objects taken or collected without a permit.
- Rivers and Harbor Act (1899) (33 U.S.C. 403): Section 10 of this Act requires the authorization by the U.S. Army Corps of Engineers prior to any work in, on, over, or under a navigable water of the United States.

2. DIRECTIVES

The authority for developing CCPs for national wildlife refuges is the National Wildlife Refuge System Improvement Act of 1997. However, management and administration of refuges is governed by numerous national and regional directives derived from Secretarial Orders, Service Director's Orders, Service Regional Director's Orders, and Service Policy Guidance contained in the Interior Departmental Manual and the Service's Manual (see part 602 of the Service Manual at www.fws.gov).

3. OPPORTUNITIES AND ISSUES

Internal and external scoping revealed several opportunities and issues facing the Refuge. These include:

Service Trust Resources

Numerous Service trust resources utilize the Refuge and the Yellow River Focus Area for meeting one or more of their life cycle needs, including three Federally listed threatened or endangered species. These include the bald eagle, eastern timber wolf, and Karner blue butterfly. The eastern massasauga rattlesnake, which is currently a candidate for federal listing, is found in low numbers in the Yellow River area. Several state-listed threatened or endangered species use the Refuge, including the red-shouldered hawk, Blanding's turtle, and trumpeter swan. The Refuge also supports several rare, threatened, or endangered species of plants, including the prairie fameflower, small skullcap, oval-leaved milkweed, and wooly milkweed, and provides



Planning Context

habitat for several important plants (e.g., wild lupine and downy phlox) that support rare organisms (e.g., Karner blue butterflies, phlox moth).

In total, more than 230 different species of birds have been observed on the Refuge since its inception. The Refuge has long been considered an important migratory stopover area for waterfowl such as mallards, blue-winged teal, ring-necks, and wood ducks. Other migrant bird species that utilize the Refuge during spring, summer, or fall include: Canada, snow, and white-fronted geese; sandhill cranes; woodcock; snipe; great blue herons; swans; egrets; dickcissels; warblers; brown thrashers; several different species of sparrows; meadowlarks; sora rails; black-crowned night herons; bobolinks; bitterns; and red-tailed hawks; just to name a few. During migrations, three species of geese, 10 species of dabbling ducks, nine species of diving ducks, and trumpeter and tundra swans are commonly found in significant numbers on the Refuge. In recent years, many plant and animal species associated with Midwestern grasslands, savannas, and sedge meadows have experienced serious declines, primarily due to habitat loss and alteration of natural ecosystem structure and function (e.g., predation, exotic species, fire suppression, habitat fragmentation, drainage/flooding).

The wide-scale loss of oak savanna and pine barren ecosystems across twelve states and the province of Ontario, Canada, has had severe negative impacts on Karner blue butterflies. As a result, the KBB was proposed for federal listing on January 21, 1992, and listed as endangered on December 14, 1992. Today scattered populations are only found in portions of New Hampshire, New York, Michigan, Wisconsin, Indiana, and Minnesota (Karner Blue Butterfly Habitat Conservation Plan and Environmental Impact Statement, 1999). The Refuge is home to the world's largest remaining population of Karner blue butterflies, providing habitat for 12 population complexes. No critical habitat has been designated for this species.

Grassland-dependent birds have shown steeper, more consistent, and geographically more widespread declines (25-65%) than any other group of North American birds (Samson and Knopf 1994). Breeding Bird Surveys for the Great Lakes-Big Rivers Region indicate that numerous grassland nesting, non game species in the Midwest have shown significant declines since the mid-1960's (National Biological Survey 1995). Several of these utilize the Refuge. These include the bobolink, Henslow's sparrow, grasshopper sparrow, vesper sparrow, savannah sparrow, lark sparrow, field sparrow, dickcissel, eastern meadowlark, and American bittern. The grasshopper sparrow and dickcissel have declined over 80 percent in Wisconsin since the mid-1960's. Many others, especially those associated with rare oak savannas (e.g., Red-headed Woodpecker, Northern Flicker), have experienced similar, through less dramatic declines.

The Refuge has incomplete inventories for many of it natural, archeological, and cultural resources, including wildlife and habitat. Monitoring systems needed to protect and properly manage Refuge resources are also inadequate. Monitoring and evaluation systems need to be developed to measure progress toward habitat goals and objectives.

Refuge Visitor Services

The National Wildlife Refuge System Improvement Act of 1997 has ushered in a new era of public involvement on national wildlife refuges. Providing for public uses is now an essential part of Refuge missions across the country. Necedah National Wildlife Refuge has always been a



Planning Context

popular destination for hunting and fishing enthusiasts. However, in recent years other uses, such as wildlife observation, hiking, environmental education, and interpretation have surpassed traditional activities in terms of public interest.

The Refuge currently has two major needs relative to providing high quality services to its visitors. First, the main office (which also serves as the visitor center) is ineffective as an initial visitor contact point (due to its isolation, distance from a main road, and small size). The current facility has no formal education features (with the exception of a small conference room) and lacks in interpretive programming displays. In recent years, Refuge programs and activities have attracted over 100 participants. The current facility accommodates a maximum of 30. Further, the Refuge is now the site for an experimental whooping crane population, an attraction that will undoubtedly increase visitor use at the Refuge.

The second major need relates to the quality of the existing visitor facilities at the Refuge. There is a need to renovate existing facilities for safety and accessibility, to improve visitor information systems (signs and brochures), and to bring public facilities up to Service standards.

Other visitor services concerns learned through scoping is the Refuge is not known and understood within the local area. This was made apparent during the three-year planning process for the Refuge CCP. Many people living near the Refuge do not distinguish the Service from the Wisconsin DNR, or understand that the Refuge is part of a national system of Refuges dedicated to perpetuating our nations fish and wildlife resources for the enjoyment of present and future generations. The Refuge needs to promote its recreation and educational opportunities, as well as raise awareness of the importance of the Refuge among the various economic and environmental interests that influence public policy and Refuge management direction. To improve customer service, the Refuge needs to collect additional information on Refuge visitor volume, characteristics, opinions, and what their expectations are for the Refuge.

Habitat Management

The need for additional wildlife habitat protection, restoration and management at the Refuge has been made clear by the declining status of numerous grassland, savanna, and wetland dependent species of birds (see "Service Trust Resources" above) and numerous studies that have demonstrated that habitat loss or degradation is a common causal factor in many of those declines.

The State of Wisconsin has lost over 53 percent of its original wetlands and 99 percent of its original prairies and oak savannas. Prior to European settlement, Wisconsin is estimated to have had approximately 10 million acres of wetlands and 4 million acres of savannas. Today less than 5 million acres of wetlands remain. Savannas have been reduced to less that 60,000 acres statewide.

At the National level, habitat losses are equally dramatic. Of the estimated 221 million acres of wetland habitat present in the lower 48 states at the time of colonial America, only 103 million acres remain (47 percent). Draining, dredging, filling, leveling, and flooding have reduced wetlands to where now twenty-two states have lost 50 percent or more of their original wetlands,

PARTICIPATION OF THE

Necedah National Wildlife Refuge

Planning Context

and ten states have lost 70 percent or more (Dahl, 1990).

Native Midwestern prairies have suffered an even more drastic fate. For years following the initial conversion of native Midwestern prairies, many prairie-dependent wildlife species remained relatively stable through their ability to colonize agricultural grasslands. However, 20th century agricultural grassland loss has followed a similar path of decline as native prairie loss in the 19th century. In many parts of the Midwest, agricultural grasslands are at their lowest level in more than 100 years.

Of late, a new round of human-induced change threatens many remaining ecosystems in the Refuge area. A trend called "rurbanization" where rural areas are being converted to a more densely developed state. In recent years, the population of the area surrounding the Refuge has expanded, while the size of the undeveloped land base continues to shrink, leaving many natural areas as scattered fragments of increased importance for scientific study, education, and protection of natural ecological processes. According to the U.S. Census, the Town of Necedah and the Town of Finley grew by 34 percent and 27 percent respectively between 1990 and 2000. As a result, many of the large natural areas around the Refuge (and in the Yellow River area) are being fragmented through housing development, roads, etc), which diminishes the value of these areas for area-sensitive wildlife like the bobolink, prairie chicken, and many large mammals. Habitat size, shape, and amount and type of edge are important factors in the reproductive success of many grassland birds. It is this type of development that particularly threatens the remaining oak savanna habitat in this region. Without proper management, most areas will continue to degrade due to their size, isolation, absence of natural processes such as fire and hydrologic cycle maintenance, and inadequate buffers protecting them from surrounding agricultural and urban land uses. It also places greater demands on the Refuge and its partners in terms of safeguarding Refuge ecosystem structure and function for the benefit of Service trust resources.

The Refuge is facing increasing threats to its ecological and aesthetic character due to air, water, and noise pollution, exotic species, and incompatible recreational uses. The region's agricultural sector has become much more dependent on the use of pesticides and fertilizers. Runoff from nearby agricultural fields may end up in water that drains into the Refuge, posing a threat to the habitat on which many wildlife species rely. Finally, the Wisconsin Air National Guard maintains a gunnery and bombing training range northeast of the Refuge. An expansion of this range could have an adverse impact on the Refuge, especially on the resident and migrating wildlife populations and on Refuge visitor experiences.

The Yellow River Focus Area

The Yellow River Focus Area (Figure 11), which lies east of the Refuge, provides a unique opportunity to protect rare and declining bottomland forest and adjacent upland habitat for the benefit of listed species, waterfowl and other migratory birds, and native biological diversity. The Yellow River area represents one of the few remaining high-quality bottomland hardwood forest ecosystems in the nation. Silver maple, swamp white oak, green ash, and river birch dominate the floodplain, while the lower sandy ridges, slightly higher than the flood plain, support white oak, bur oak, shagbark hickory, and white pine. The highest of these areas were once oak and pine savannas, one of North America's most endangered habitats, with only .02% of its pre-settlement



Planning Context

acreage remaining.

While rich in biological diversity, the Yellow River area is experiencing human-induced degradation (primarily due to rural development as described in the previous section and lack of habitat management) and would benefit from habitat protection and management practices designed to sustain it's ecological value (protection of large blocks of habitat through financial incentives to landowners, prescribed fire, mowing, wetland restoration, forest management).

Many landowners within the 21,952-acre Yellow River Focus Area have contacted the Refuge in recent years in search of technical assistance in managing their land for wildlife. In the past 2 years, 121 landowners owning 17,308 acres in the Yellow River Focus Area have received technical assistance from the Service. However, nearly all of the area is in private ownership and unprotected from future development.

Many Federal, state, and local conservation organizations support stewardship and protection of the natural resources in the Yellow River area. Several property owners have indicated an interest in selling their land and/or a conservation easement on their land to the Service.

4. ECOSYSTEM GOALS

As stated previously, the Refuge is located in the Upper Mississippi River/Tallgrass Prairie Ecosystem. Six eco-types are currently the Service's focus for this ecosystem. They include: prairie wetland and associated habitats, tallgrass prairie and associated habitats, oak savanna and forest lands, the Driftless area, streams and riparian woodland corridors, and the Mississippi River corridor. Service goals for this Ecosystem are to:

- Protect, restore, and enhance populations of native and trust species and their habitats.
- Restore and maintain natural ecosystem processes, including hydrology and sediment transport to maintain species and habitat diversity.
- Promote environmental awareness of the ecosystem and its needs with emphasis on sustainable land use management, improve water quality of the Ecosystem.
- Promote balance and compatible socioeconomic uses of the Ecosystem's resources.
- Improve water quality in the ecosystem

5. OTHER PLANNING EFFORTS

The following Federal, state, and local plans, planning efforts, and initiatives were reviewed and considered when developing the CCP for the Refuge:

- U.S. Fish and Wildlife Service Timber Wolf Recovery Plan
- U.S. Fish and Wildlife Service Bald Eagle Recovery Plan
- U.S. Fish and Wildlife Service Karner Blue Butterfly Recovery Plan
- Juneau County Land and Water Resource Management Plan
- Juneau County 10-Year Forest Management Plan
- Wood County Land and Water Resource Management Plan
- Wood County 10-Year Forest Management Plan
- Wisconsin DNR/Refuge Cooperative Agreement (Meadow Valley Management)



Planning Context

- Wisconsin DNR/Refuge Cooperative Agreement (Fire Protection Agreement)
- Savanna Partnership Memorandum of Understanding
- Golden Sands Resource Conservation and Development Area
- Central Wisconsin River Basin Partnership
- Hardwood Bombing Range Guidelines (pertaining to Refuge overflights)
- North American Waterfowl Management Plan
- · Partners In Flight Bird Conservation Plans
- U.S. Shorebird Conservation Plan

6. UNIQUE ASSETS

The programs and activities of the Refuge are influenced by the following unique assets:

- The Refuge comprises a 43,696-acre Federally-owned land base that currently supports diverse and abundant flora and fauna populations, including over 230 species of birds, over 100,000 migratory waterfowl and shorebirds annually (the largest stopover site in Wisconsin for migrating sandhill cranes, and when including the Necedah Wildlife Management Area, the second largest nesting colony of black terns in Wisconsin (state endangered species).
- The Necedah Wildlife Management Area is 114,564 acres of Federal property, which includes Necedah National Wildlife Refuge. Land that are not part of the Refuge are currently managed as part of the Wisconsin Department of Natural Resources' Meadow Valley, Wood County, and Sandhill State Wildlife Areas, with scattered parcels in Jackson County. This large block of land, dedicated to the conservation and management of natural resources, provides a rare opportunity for sustainable ecosystem management.
- The Refuge has a multi-disciplinary team of biologists, technicians, and support staff who are recognized leaders in their fields.
- The Refuge has management expertise for numerous threatened and endangered species, including the eastern timber wolf (the Refuge has the southernmost habitat utilized in the United States), bald eagle, Blanding's turtle, eastern massasauga rattlesnake, phlox moth, the single largest population of Karner blue butterflies in the world (Federally endangered species), and whooping crane (Federally endangered species)(the Refuge was recently selected as a reintroduction site for a new population of endangered whooping cranes).
- The Refuge has cooperative working relationships with several universities, other Federal agencies, the state of Wisconsin, educational institutions, and non-government organizations.
- The Refuge has support and participation from a diverse and growing public, who in 1999, numbered nearly 150,000 people.

7. MANAGEMENT ASSUMPTIONS

The planning team made several assumptions that must hold true in order for the Refuge to attain its future goals. They include.....

• Habitats essential to the life cycle of Refuge resources will not be adversely affected elsewhere, such as the destruction of essential wintering habitat for migratory birds that utilize the Refuge for breeding.



Planning Context

- State laws and regulations will support fish and wildlife dependent recreational activities and environmental health in a manner that conserves natural resources.
- The Refuge's budget will not decline appreciably in the next 10-15 years, and funding for designated projects will be allocated in a timely matter. Staffing levels will be maintained or increased in keeping with government streamlining targets.
- As new Refuge lands are acquired and land management responsibilities increase, Refuge operations funding will also increase.
- Cooperation and collaboration with the state, local communities, private landowners, non-government organizations, business, and other federal agencies will be increasingly important in achieving Refuge goals.
- In keeping with the "wildlife first" mandate of the National Wildlife Refuge System, the demand for wildlife-dependent recreation will continue to increase on the Refuge.
- Residential development will continue to increase in the Yellow River Focus Area.
- The public will be increasingly involved in management decisions on the Refuge.
- Funding and staff will be allocated to support monitoring programs to evaluate progress toward and accomplishment of Refuge goals and objectives.